

An extension of time to respond to the Office Action is respectfully requested. A Petition for Extension of Time and the appropriate fee are being filed concurrently with this Amendment.

In the Claims

*Please amend Claims 10, 11, 13, 41, 46 and 50-52.*

10. (Amended) The method of Claim 2 further including the step of:  
re-requesting, by the member node, the change to the cluster definition if  
after a period of time, the change is not made to the cluster definition.

11. (Twice Amended) An apparatus for updating a cluster definition for a network cluster having at least one member node, comprising:  
a shared repository coupled to the at least one member node of the cluster, the repository including the cluster definition;  
a member node to request a change to the cluster definition by sending a proposed change to the shared repository; and  
a coordinator node, selected from the at least one member node of the network cluster, to update the cluster definition with the proposed change.

13. (Twice Amended) A computer program product for maintaining a cluster definition for a network cluster having at least one member node, the computer program product comprising:  
a computer usable medium having computer readable program code thereon, including program code for:  
coupling the at least one member node to a shared repository;  
storing a cluster definition for the network cluster in the shared repository;  
selecting a coordinator node from the at least one member node of the network cluster;  
requesting a change to the cluster definition by sending a proposed change to the shared repository; and

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directing the coordinator node to update the cluster definition in response to the requested change to the cluster definition.

41. (Amended) An apparatus for maintaining a cluster definition for a network cluster having at least one member node, comprising:

a shared repository coupled to the at least one member node of the cluster, the shared repository including the cluster definition and a proposed change to the cluster definition;

a coordinator node, selected from the at least one member node of the network cluster, to update the cluster definition with the proposed change; and

a potential member node to access the cluster definition on the shared repository.

46. (Amended) A computer program product for maintaining a cluster definition for a network cluster having at least one member node, the computer program product comprising:

a computer usable medium having computer readable program instructions thereon, including instructions for:

coupling the at least one member node to a shared repository;

storing a cluster definition for the network cluster in the shared repository;

selecting a coordinator node from the at least one member node of the network cluster;

requesting a change to the cluster definition by sending a proposed change to the shared repository;

directing the coordinator node to update the cluster definition to reflect the requested change; and

directing a potential member node to access the cluster definition on the shared repository.

50. (Amended) A system for maintaining a cluster definition for a network cluster having at least one member node, the system comprising:

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- a means for coupling the at least one member node to a shared repository;
- a means for storing a cluster definition for the network cluster in the shared repository;
- a means for selecting a coordinator node from the at least one member node of the network cluster;
- a means for requesting a change to the cluster definition by sending a proposed change to the shared repository;
- a means for the coordinator node to update the cluster definition to reflect the requested change; and
- a means for a potential member node to access the cluster definition on the shared repository.

51. (Amended) A method for maintaining a cluster definition for a network cluster having at least one member node, the method comprising:

- coupling the at least one member node to a shared repository;
- storing a cluster definition for the network cluster in the shared repository;
- selecting a coordinator node from the at least one member node of the network cluster;
- at a member node, requesting a change to the cluster definition by:
  - sending a proposed change to a scratch area of the shared repository;
  - setting a valid bit associated with the scratch area;
  - verifying the valid bit;
  - setting an update flag;
  - modifying the cluster definition to reflect the requested change; and
  - logging a progress of modifying the cluster definition in a log file in parallel with modifying the cluster definition;
- incrementing a version number associated with the shared repository; and
- clearing the valid bit and the update flag; and
- from the coordinator node, updating the cluster definition to reflect the requested change.

52. (Amended) A method for maintaining a cluster definition for a network cluster having at least one member node, the method comprising:

coupling the at least one member node to a shared repository;  
storing a cluster definition for the network cluster in the shared repository;  
selecting a coordinator node from the at least one member node of the network cluster;

at a member node, requesting a change to the cluster definition by sending a proposed change to the shared repository;  
from the coordinator node, updating the cluster definition to reflect the requested change;

requesting, by a potential member node, membership in the network cluster; and  
accessing, by the potential member node, the cluster definition on the shared repository, for each potential member node accessing the cluster definition:

determining a version number of the shared repository to yield a first version number;  
reading the cluster definition;  
re-determining a version number of the shared repository to yield a second version number;  
comparing the first version number with the second version number; and  
repeating the step of accessing the cluster definition until the first version number equals the second version number.

*Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i - iv).*